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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,681	12/18/2006	Brian Benicewicz	0094.065A	4521
23405 7590 06/20/2007 HESLIN ROTHENBERG FARLEY & MESITI PC 5 COLUMBIA CIRCLE ALBANY, NY 12203			EXAMINER TESKIN, FRED M	
			ART UNIT 1713	PAPER NUMBER
			MAIL DATE 06/20/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/583,681

Applicant(s)

BENICEWICZ ET AL.

Examiner

Fred M. Teskin

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6 and 10-17 is/are rejected.
- 7) ☒ Claim(s) 4,7-9 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 20061016.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

Art Unit: 1713

The preliminary amendment of June 19, 2006 has been entered. Claims 1-18 are currently pending and under examination herein.

Claims 9 and 18 are objected to because of the following informalities: a period has been omitted at the end of each claim, and the conjunction "and" should be inserted between the final two Markush members (compounds). Appropriate correction is required.

Claims 12-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 12-15 each purport to further limit a variable "R<sup>1</sup>"; however, there is no proper and sufficient antecedent basis for this variable in the claims (*cf.*, formula II as set forth in parent claim 11). Clarification and appropriate correction are required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6153705 (Corpart et al).

Art Unit: 1713

Corpart et al disclose a free radical polymerization process comprising combining an ethylenically unsaturated monomer (e.g., methyl acrylate), a radical polymerization initiator and a chain transfer agent represented by the general formulae (III), (IV) and (V) in column 8, lines 41+. Specific compounds within the general formula (III) are synthesized in Examples 1.9 and 1.12 and used in Example 2.21 to form methyl acrylate homopolymer. The chain transfer agents according to Examples 1.9, 1.12 and 2.21 are seen to correspond to applicants' chain transfer agent when  $R^2$  is alkyl and  $R^1$  is alkoxy in claim formula I, and thus the reference is fully responsive to the essential limitations of claims 1, 2, 5 and 10.

Claims 1-3, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Chiefari et al.

Chiefari et al disclose a free radical polymerization process comprising combining specific species of applicants' monomers, specific radical polymerization initiators and various dithio compounds under conditions as detailed in Table 1 thereof. The thirteenth entry of Table 1, detailing free-radical polymerization of vinyl benzoate in the presence of the dithio compound 6, is seen to fully meet claims 1-3, 10 and 11 in that compound 6 is an  $\alpha$ -cyano dithioester with phenyl and  $-\text{C}(\text{CN})(\text{CH}_3)_2$  groups, and thus corresponds to applicants' chain transfer agent when  $R^1$  (or  $R^{11}$ ) and  $R^2$  in claim formulae I and II are aryl and alkyl, respectively.

Art Unit: 1713

Claims 1, 2, 5, 6, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Mayadunne et al.

Mayadunne et al describe the use of dithio compounds **3** and **5b** as chain transfer agents in the free radical polymerization of methyl methacrylate (see Table 1). The compounds **3** and **5b** are  $\alpha$ -cyano dithioesters with pyrrole or dimethylamino and  $-C(CH_3)_2CN$  groups, and thus correspond to applicants' chain transfer agent when  $R^1$  and  $R^2$  in claim formulae I are heteroaryl or secondary amino and alkyl, respectively, or when  $R^{11}$  and  $R^2$  in claim formula II are heteroaryl and alkyl, respectively.

Claims 11, 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by US 3646094 (Brooks et al).

Example 5 of Brooks et al describes an  $\alpha$ -cyano dithiocarboxylic acid ester in compliance with formula II of claim 11; i.e., the described compound has thioalkyl and substituted aryl moieties corresponding to  $R^{11}$  and  $R^2$  as defined in claim 11. Further, compound nos. 4-6, 9-11, 13-15, 19 and 21 as listed in Table 1 of Brooks et al are all  $\alpha$ -cyano dithiocarboxylic acid esters with either phenyl or substituted phenyl groups and specific heteroaryl moieties, which meet the definitions of  $R^{11}$  and  $R^2$  as set forth in claims 11 and 16-17, respectively. Since the cited compounds are clearly named in Brooks et al, the species of claims 16-17 are anticipated no matter how many other species are additionally named. See, *Ex parte A*, 17 USPQ2d 1716 (Bd. Pat. App. & Inter. 1990) (comprehensiveness of a reference does not negate from the fact that the claimed compound was specifically taught).

Art Unit: 1713

Claims 4, 7 and 8 are objected to as being dependent on a rejected base claim but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claim.

Claims 9 and 18 would be allowable if amended or rewritten to overcome the informality objection set forth in this Office action and to include all the limitations of the base claim and any intervening claim.

Any inquiry concerning this communication should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FMTeskin/06-14-07

  
**FRED TESKIN**  
**PRIMARY EXAMINER**  
1713